

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An Examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to the applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Joseph F. Oriti Reg. No. 47,835, on 03/14/2011.

2. The application has been amended as follows: **In the claims:**

1. (Currently Amended) A method for maintaining the security of data displayed on a display for a computing system comprising a secured execution environment and a second execution environment, the method comprising:

operating, on the computing system, the second execution environment concurrently with the secured execution environment;

displaying a graphical user interface element of said secured execution environment, said graphical user interface element being associated with a first process running on said secured execution environment, wherein a shadow graphical user interface element corresponding to the graphical user interface element is maintained by the second execution environment;

storing public title information and a private title information for the graphical user interface element;

using said private title information for window management functions on said secured execution environment when displaying said graphical user interface element;

and

providing said public title information for use in said second execution environment.

2. (Currently Amended) The method of claim 1, wherein displaying said graphical user interface element comprises:

ensuring that said graphical user interface element contains no areas of transparency.

3. (Previously Presented) The method of claim 1, wherein displaying said graphical user interface element on a display comprises displaying said graphical user interface element such that no part of said graphical user interface element is obscured by a graphical user interface element associated with a second process running on said secured execution environment.

4. (Original) The method of claim 1, further comprising:
displaying only said graphical user interface elements on said display upon receipt of a user secure display indication.

5. (Currently Amended) A method for maintaining the security of data displayed on a display for a computing system comprising a secured execution environment and a second execution environment, the method comprising:

- operating, on the computing system, the second execution environment concurrently with the secured execution environment;
- storing a user secret associated with said secured execution environment; and
- displaying a graphical user interface element of said secured execution environment comprising said user secret on said display, where said graphical user interface element is associated with a process running on said secured execution environment, wherein a shadow graphical user interface element corresponding to the graphical user interface element is maintained by the second execution environment;
- storing public title information and a private title information for the graphical user interface element;
- using said private title information for window management functions on said secured execution environment when displaying said graphical user interface element;
- and
- providing said public title information for use in said second execution environment.

6. (Previously Presented) The method of claim 5, wherein displaying a nexus graphical user interface element comprising said nexus-user secret on a display

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comprises:

accepting a user nexus-user secret display indication; and

displaying said nexus-user secret.

7. (Currently Amended) A method for maintaining the security of data displayed on a display for a computing system comprising a secured execution environment and a second execution environment, the method comprising:

operating, on the computing system, the second execution environment concurrently with the secured execution environment, the secured execution environment comprising a nexus and the second execution environment comprising a different operating system;

accepting at least two graphical data elements of said nexus, each associated with a process running on said secured execution environment, for display on said display; and

displaying at least two graphical user interface elements of said nexus, each of said nexus graphical user interface elements comprising one of said nexus graphical data elements and a common graphical user interface decoration, wherein for each of the at least two nexus graphical user interface elements the second execution environment maintains a corresponding shadow graphical user interface element;

storing public title information and a private title information for at least one of the graphical user interface elements;

using said private title information for window management functions on said secured execution environment when displaying said at least one of the graphical user interface elements; and
providing said public title information for use in said second execution environment.

8. (Original) The method of claim 7, where said common graphical user interface decoration comprises a colored border.

9. (Original) The method of claim 7, where said common graphical user interface decoration comprises one or more randomly selected images.

10. (Original) The method of claim 7, further comprising:
changing said common graphical user interface decoration when a set time period elapses.

11. (Original) The method of claim 7, further comprising:
changing said common graphical user interface decoration when a user decoration change indication is received.

12. (Previously Presented) A method for maintaining the security of data displayed on a display for a computing system comprising a secured execution environment and a second execution environment, the method comprising:

operating, on the computing system, the second execution environment concurrently with the secured execution environment, the secured execution environment comprising a nexus and the second execution environment comprising a different operating system;

storing public title information and private title information for a graphical user interface element of said nexus, the nexus graphical user interface element being associated with a process running on said secured execution environment, wherein a shadow graphical user interface element corresponding to the nexus graphical user interface element is maintained by the second execution environment;

using said private title information for window management functions on said secured execution environment when displaying said nexus graphical user interface element; and

providing said public title information for use in said second execution environment.

13. (Previously Presented) The method of claim 12, the second execution environment comprising a host window manager for managing graphical user interface elements on said display, where said host window manager creates [[a]] the shadow graphical user interface element for said nexus graphical user interface element, and

where said public title is used by said host window manager.

14. (Original) The method of claim 12, further comprising:

displaying each of said nexus graphical user interface element on said display completely on a display, such that no part of said nexus graphical user interface element is obscured by a graphical user interface element associated with said second execution environment on said display, where each of said nexus graphical user interface elements comprises a common graphical user interface decoration.

storing a nexus-user secret associated with said secured execution environment;
and

displaying a nexus-user secret graphical user interface element comprising said nexus-user secret on said display.

15. (Currently Amended) A computer-readable storage medium containing computer executable instructions to maintain the security of data displayed on a display for a computing system comprising a secured execution environment and a second execution environment, the computer-executable instructions to perform acts comprising:

operating, on the computing system, the second execution environment concurrently with the secured execution environment;

displaying a graphical user interface element of said secured execution environment, said graphical user interface element being associated with a first process

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running on said secured execution environment, wherein a shadow graphical user interface element corresponding to the graphical user interface element is maintained by the second execution environment;

storing public title information and a private title information for the graphical user interface element;

using said private title information for window management functions on said secured execution environment when displaying said graphical user interface element;

and

providing said public title information for use in said second execution environment.

16. (Previously Presented) The computer-readable storage medium of claim 15, where said act of displaying said graphical user interface element comprises:

ensuring that said graphical user interface element contains no areas of transparency.

17. (Previously Presented) The computer-readable storage medium of claim 15, where said act of displaying said graphical user interface element on a display comprises displaying said graphical user interface element such that no part of said graphical user interface element is obscured by a graphical user interface element associated with a second process running on said secured execution environment.

18. (Previously Presented) The computer-readable storage medium of claim 15, wherein the computer-executable instructions are adapted to perform acts further comprising:

displaying only said graphical user interface elements on said display upon receipt of a user secure display indication.

19. (Currently Amended) A computer-readable storage medium containing computer executable instructions to maintain the security of data displayed on a display for a computing system comprising a secured execution environment and a second execution environment, the computer-executable instructions to perform acts comprising:

operating, on the computing system, the second execution environment concurrently with the secured execution environment;

storing a user secret associated with said secured execution environment; and

displaying a graphical user interface element of said secured execution environment comprising said user secret on said display, where said graphical user interface element is associated with a process running on said secured execution environment, wherein a shadow graphical user interface element corresponding to the graphical user interface element is maintained by the second execution environment;

storing public title information and a private title information for the graphical user interface element;

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using said private title information for window management functions on said secured execution environment when displaying said graphical user interface element; and
providing said public title information for use in said second execution environment.

20. (Previously Presented) The computer-readable storage medium of claim 19, where said act of displaying a nexus graphical user interface element comprising said nexus-user secret on a display comprises:

accepting a user nexus-user secret display indication; and
displaying said nexus-user secret.

21. (Currently Amended) A computer-readable storage medium containing computer executable instructions to maintain the security of data displayed on a display for a computing system comprising a secured execution environment and a second execution environment, the computer-executable instructions to perform acts comprising:

operating, on the computing system, the second execution environment concurrently with the secured execution environment, the secured execution environment comprising a nexus and the second execution environment comprising a different operating system;

accepting at least two graphical data elements of said nexus, each associated with a process running on said secured execution environment, for display on said display; and

displaying at least two graphical user interface elements of said nexus, each of said nexus graphical user interface elements comprising one of said nexus graphical data elements and a common graphical user interface decoration, wherein for each of the at least two nexus graphical user interface elements the second execution environment maintains a corresponding shadow graphical user interface element.

storing public title information and a private title information for at least one of the graphical user interface elements;

using said private title information for window management functions on said secured execution environment when displaying said at least one of the graphical user interface elements; and

providing said public title information for use in said second execution environment.

22. (Previously Presented) The computer-readable storage medium of claim 21, where said common graphical user interface decoration comprises a colored border.

23. (Previously Presented) The computer-readable storage medium of claim 21, where said common graphical user interface decoration comprises one or more randomly selected images.

24. (Previously Presented) The computer-readable storage medium of claim 21, wherein the computer-executable instructions are adapted to perform acts further comprising:

changing said common graphical user interface decoration when a set time period elapses.

25. (Previously Presented) The computer-readable storage medium of claim 21, wherein the computer-executable instructions are adapted to perform acts further comprising:

changing said common graphical user interface decoration when a user decoration change indication is received.

26. (Previously Presented) A computer-readable storage medium containing computer executable instructions to maintain the security of data displayed on a display for a computing system comprising a secured execution environment and a second execution environment, the computer-executable instructions to perform acts comprising:

operating, on the computing system, the second execution environment concurrently with the secured execution environment, the secured execution environment comprising a nexus and the second execution environment comprising a different operating system;

storing public title information and a private title information for a graphical user interface element of said nexus, the nexus graphical user interface element being associated with a process running on said secured execution environment, wherein a shadow graphical user interface element corresponding to the nexus graphical user interface element is maintained by the second execution environment;

using said private title information for window management functions on said secured execution environment when displaying said nexus graphical user interface element; and

providing said public title information for use in said second execution environment.

27. (Previously Presented) The computer-readable storage medium of claim 26, the second execution environment comprising a host window manager for managing graphical user interface elements on said display, where said host window manager creates [[a]] the shadow graphical user interface element for said nexus graphical user interface element, and where said public title is used by said host window manager.

28. (Previously Presented) The computer-readable storage medium of claim 26, wherein the computer-executable instructions are adapted to perform acts further comprising:

displaying said nexus graphical user interface element on said display, such that no part of said nexus graphical user interface element is obscured by a graphical user

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interface element associated with said second execution environment on said display, where said nexus graphical user interface element comprises a common graphical user interface decoration;

storing a nexus-user secret associated with said secured execution environment;

and

displaying a nexus-user secret graphical user interface element comprising said nexus-user secret on said display.

29. (Previously Presented) A computing system for maintaining the security of data displayed on a display, the computing system comprising:

a secured execution environment and a second execution environment operating concurrently on the computing system, the secured execution environment comprising a nexus and the second execution environment comprising a different operating system;

first storage in said secured execution environment for storing private title information for a graphical user interface element of said nexus, the nexus graphical user interface element being associated with a process running on said secured execution environment, and a nexus-user secret associated with said secured execution environment, wherein a shadow graphical user interface element corresponding to the nexus graphical user interface element is maintained by the second execution environment;

second storage in said second execution environment for storing public title information for said nexus graphical user interface element; and

a trusted window manager for displaying said nexus graphical user interface element on said display, such that no part of said nexus graphical user interface element is obscured by a graphical user interface element associated with said second execution environment on said display, where said nexus graphical user interface element comprises a common graphical user interface decoration and said private title information.

30. (Previously Presented) The computing system of claim 29, where said trusted window manager displays a nexus-user secret graphical user interface element comprising said nexus-user secret on said display.

Allowable Subject Matter

3. Claims 1-30 are allowed.

4. The following is an examiner's statement of reasons for allowance:

The current application is directed to a method, a computer readable storage media and a computer system for maintaining the security of data displayed on a display comprising a secured execution environment and a second execution environment, the method, the computer storage media and the computer system comprising: a secured execution environment and a second execution environment operating concurrently on the computing system, the secured execution environment

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comprising a nexus and the second execution environment comprising a different operating system; storing private title information for a graphical user interface element of said nexus, the nexus graphical user interface element being associated with a process running on said secured execution environment, and a nexus-user secret associated with said secured execution environment, wherein a shadow graphical user interface element corresponding to the nexus graphical user interface element is maintained by the second execution environment; storing public title information for said nexus graphical user interface element; using said private title information for window management functions on said secured execution environment when displaying said graphical user interface element; providing said public title information for use in said second execution environment; a trusted window manager for displaying said nexus graphical user interface element on said display, such that no part of said nexus graphical user interface element is obscured by a graphical user interface element associated with said second execution environment on said display, where said nexus graphical user interface element comprises a common graphical user interface decoration and said private title information.

5. The art of record: Boebert et al. (Boebert, US 5, 822,435) and Ye et al. (Ye, "Trusted paths for browsers: An open-source solution to web spoofing"., Feb 4, 2002).

Boebert describes a secured execution environment and a second execution environment operating concurrently on the computing system, the secured execution

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environment comprising a nexus and the second execution environment comprising a different operating system; storing private title information for a graphical user interface element of said nexus, the nexus graphical user interface element being associated with a process running on said secured execution environment, and a nexus-user secret associated with said secured execution environment, storing public title information for said nexus graphical user interface element; using said private title information for window management functions on said secured execution environment when displaying said graphical user interface element; providing said public title information for use in said second execution environment; a trusted window manager for displaying said nexus graphical user interface element on said display, such that no part of said nexus graphical user interface element is obscured by a graphical user interface element associated with said second execution environment on said display. Ye describes where said nexus graphical user interface element comprises a common graphical user interface decoration and said private title information.

Boebert in view of Ye do not specifically disclose “wherein a shadow graphical user interface element corresponding to the nexus graphical user interface element is maintained by the second execution environment”

These limitations, in specific combination as recited in independent claims, define patentability of the claims over prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HAOSHIAN SHIH whose telephone number is (571)270-1257. The examiner can normally be reached on m-f 0730-1700.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kieu Vu can be reached on (571) 272-4057. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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HSS

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